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SEX, AND THE CAUSES OF MORTALITY.

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In the study of mortality statistics it is interesting to note and compare the number of deaths of either sex, from each cause. In systematic treatises on practical medicine, some remarks, more or less vague, on the bearings of sex on disease may be found; but the subject has not, I believe, received the amount of attention which it deserves. Every physician knows, of course, that a number of diseases are peculiar to either sex; but very few, probably, regard sex as a factor worthy of serious consideration in studying the origin and course of diseases in general, and in the selection and administration of remedies. However, the unlikeness of the sexes in physique, mental constitution and method of life should have at least a perceptible effect on the mortality of either from particular causes. I will proceed to gather some facts bearing on this subject, from the volume on vital statistics, of the Report of the Census of the United States, taken in 1870, and statistics furnished by the Health Officer of the city of Philadelphia. The census returns of deaths are doubtless incomplete, but they may be taken as reasonably exact, so far as the relative number of males and females, from individual causes, is concerned. It will be understood that the Philadelphia statistics given are for the year 1877, a year in which they are, in nearly all respects, fairly representative in character.

The following table gives the percentage of deaths of males and of females, from the various classes of causes, in the United States, for the year ending June 1st, 1870:—

Causes.	Percentage of Deaths. Males.	Females.
General diseases A	18.24	20.49
General diseases B	17.42	20.96
Local diseases—		
Of nervous system	12.88	11.62
Of circulatory system	3.47	3.44
Of respiratory system	13.53	12.40
Of digestive system	15.26	14.77
Of urinary system and organs of generation	1.35	*urin. sys.* .51; *or. of gen.* .58; *in preg.* 2.07
Of locomotory system	.49	.38
Of integumentary system	.60	.51
Conditions not general or local	5.63	5.96
Poisons	.67	.25
Parasites	.20	.23
Malformations	.074	.07
Accidents and injuries	6.72	2.25
Unknown causes	3.42	3.52

General diseases A consist of the various fevers and other acute diseases; and general diseases B consist of diseases which are more or less chronic in nature. Of these two classes it will be noticed that a smaller percentage of males than of females die of the first, and that the reverse is true of the second. I may remark that in the first class one disease which is special to females is given; it is puerperal fever, and 82 per cent. of deaths of females are attributed to it. It is a little surprising that the difference in the percentage of the deaths of the sexes from acute diseases of a zymotic character is so little; for it is likely that more females than males contract them, on account of being more exposed to them when present. The figures afford some ground for the belief that these diseases, as a

whole, are more fatal in females than in males. I will give the percentage of deaths of either sex from a few prominent diseases of the class:—

Diseases.	Males.	Females.
Measles	1.76	2.00
Scarlet fever	3.95	4.32
Typhoid fever	4.38	4.45
Diphtheria	1.18	1.40

In Philadelphia the percentages from these diseases in either sex are as follows:—

Diseases.	Males.	Females.
Measles	.40	.45
Scarlet fever	2.26	2.47
Typhoid fever	3.40	3.36
Diphtheria	2.31	3.44

It is seen that from each of these four diseases a greater percentage of females than of males die in the country at large; and the same statement holds good in Philadelphia, save in the case of typhoid fever. Usually there is a slightly greater percentage of the deaths of females than of males from typhoid fever in Philadelphia. Diphtheria is accountable for far more of the deaths of females than of males, especially in the city. It is remarkable how many more deaths are due to measles in the country, as a whole, than in the city.

Turning now to the second class of general diseases, it is noticed that it is considerably more fatal to females than to males; but of notable diseases of it, rheumatism, gout, syphilis and scurvy cause a greater percentage of the deaths of the latter than of the former. The following are the percentages of mortality of either sex from leading diseases of the class:—

Diseases.	Males.	Females.
Consumption of lungs	13.03	15.52
Cancer	.88	1.65
Rheumatism	.63	.53

In Philadelphia the percentages of deaths of either sex from these three diseases are as follows:—

Diseases.	Males.	Females.
Consumption of lungs	14.04	15.36
Cancer	1.18	2.95
Rheumatism	.13	.26

Here we see that a greater percentage of the deaths of females than of males from each of these diseases occurs in the city, and also in the country at large, save in the case of rheumatism. The percentage of the deaths of males from consumption is greater in the city than in the country at large, but the reverse is so in the case of females—a striking fact. Cancer is far more fatal to females than males, and to both in the city than in the country at large. This terrible disease is destroying, from year to year, an increasing number of lives, especially in cities. It is strange that cancer of the stomach is much more frequent in males than in females; the proportion in Philadelphia is three in the former to two in the latter. I may remark that the uterus is the part of the female most liable to be affected with cancer; next the breast, next the stomach, and next the liver; while in the male the stomach is the most liable to become affected, and the liver next. Rheumatism is accountable for far more deaths in the country at large than in the city, especially in males.

Passing now to local diseases, it is noticeable that diseases of the nervous system carry off a greater percentage of males than of females. This is the reverse of what one might expect, for the nervous system of woman is, as a rule, more highly developed and impressible than it is in man, and her method of life is generally more enervating than is his. Sunstroke and tetanus destroy a considerably greater percentage of males than of females; but the reverse is true of disorders of the intellect. In the country at large, the sunstrokes of males are nearly seven times greater in number than of females; which arises from the greater exposure of the former to the inciting causes; while in Philadelphia the proportion is 3 to 1. The deaths of males in the country at large, from tetanus, are a little less than twice the number of females from it; while in Philadelphia the proportion is 13 to 1.

The percentages of the deaths of the sexes from diseases of the circulatory system differ but little; far less than one might expect. Valvular diseases, and notably aneurisms, are more common in males than in females.

Diseases of the respiratory system destroy more males than females, which doubtless arises from the fact that the former, in their daily avocations, are more exposed to the causes which produce them than are the latter. The following are the percentages in the three leading diseases of the class:—

Diseases.	Males.	Females.
Pneumonia	8.57	7.62
Croup	2.22	2.11
Bronchitis	.84	.79

In Philadelphia the percentages for these diseases are—

Diseases.	Males.	Females.
Pneumonia	5.59	4.89
Croup	2.11	2.11
Bronchitis	1.97	1.78

Bronchitis is a mild disease in comparison with pneumonia, but not so markedly so in the city as in the country at large.

Digestive diseases, as a whole, are more destructive to males than to females; but a slightly greater percentage of the deaths of females than of males is caused by teething, and the same is true of several diseases of minor importance. The following are the percentages of deaths of the sexes from the four leading diseases of the class:—

Diseases.	Males.	Females.
Cholera infantum	4.12	4.10
Diarrhœa	2.99	2.77
Enteritis	1.89	1.77
Dysentery	1.63	1.57

In Philadelphia the percentages for these four diseases are as follows:—

Diseases.	Males.	Females.
Cholera infantum	6.34	5.88
Diarrhœa	.78	.76
Enteritis	2.38	1.98
Dysentery	.51	.47

All these diseases are more destructive to males than to females, in the city, as well as in the country at large. The amount of cholera infantum in the country at large is not so much less than it is in the city as one might expect; still the difference is considerable.

I need not dwell on diseases of the urinary system, only to remark that Bright's disease causes about a third more deaths in males than in females.

Passing over diseases of the locomotory and integumentary systems, as not calling for any special comments, I come to conditions not necessarily associated with general or local diseases, of which there are three, viz:—still-born, old age, and debility. The number of still-births of males is much greater than it is of females; in the nation at large the proportion is 140 of the former to 100 of the latter; and 132 of the former to 100 of the latter in Philadelphia—a little less than the average for a series of fifteen years, which is 136 to 100. The percentage of the deaths of males in the country at large, from old age, is 1.33, and of females, 1.85; and in Philadelphia, 2.42 per cent. of the deaths of males, and 5.36 of females, are attributed to the same indefinite cause. The percentage of either sex from debility is nearly the same.

Poisons cause a larger percentage of the deaths of males than of females, and the same is true, in a less degree, of malformations, but the reverse is true of parasites.

Accidents and injuries do not cause a greater number of the deaths of males than of females than ought to be expected, from the greater exposure to them of the former in their daily avocations. Homicide in males is over 12 times more frequent than it is in females, and the male suicides outnumber the females three times over—a very good showing for the weaker sex. Of the 1060 male suicides, 237 resorted to fire-arms, 109 cut their throats, 76 drowned themselves, 304 hanged themselves, 128 resorted to poisons, and 206 committed the fatal act in ways not specified; and of the 285 female suicides, 14 resorted to fire-arms, 24 cut their throats, 43 drowned themselves, 66 hanged themselves, 75 resorted to poisons, and 63 committed the act in ways not specified. The homicides in Philadelphia are 6 of males and 5 of females, and the suicides 49 of males and 10 of females.

I have now gone over the various classes of causes of mortality, and although both interesting and instructive, it cannot be said that the examination as a whole is as satisfactory as one could wish it were. There are so many circumstances at play to modify the liability to and severity of diseases in either sex, that it is almost, if not quite, impossible, from a study of the causes of the mortality of the sexes, to form a clear, definite idea as to the precise influences of the various peculiarities connected with sex on the contraction and the fatality of each and every disorder; but the various circumstances which tend to prevent or to favor the occurrence of disease and injury, and to add to or diminish their severity when present, are practically part and parcel of the sexes. In conclusion I may say that it would be very desirable to know the number of either sex attacked by each disease, particularly of the zymotic class, as well as the number of deaths from each, but it is impossible to hope that legislation will ever enable us to obtain this information, even in cities.

THE REUNION OF DIVIDED TENDONS IN OPEN WOUNDS.

Read before the Æsculapian Society of the Wabash Valley, May, 1878,

BY J. D. MITCHELL, M.D.,
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June 5th, 1876, I was called to see H. Reimen, German laborer, aged 35 years. While mowing, some part of the harness became disarranged, and stopping his team, he stepped down in front of the sickle, to adjust it, and while leaning forward the horses moved up, causing the sickle to completely sever the tendo-Achillis, about an inch above its insertion into the os calcis, passing through the external malleolus; and of course the tendon of the peroneus longus and brevis. The wound ranged slightly upward, and from a point midway between the internal malleolus and the

tendon, through the external malleolus, leaving the articulation of the tibia and astragalus exposed. The ligaments of the joint were in no way injured. The foot was flexed upon the leg, leaving the wound gaping open two or three inches. The part of the external malleolus cut off was loose, and could have been easily detached. No arteries were wounded, and consequently there was but little hemorrhage. His friends had filled the wound with tobacco, cotton cloths, and applied cold water freely. I thoroughly cleansed the wound, and not having any silver wire with which to bring the ends of the tendons together, the wound was dressed in the following manner: The foot was extended to its full extent, and held in this position by the application of long adhesive straps, passing over the sole of the foot and heel, and up and around the leg, the calf being pressed downward as much as possible as they were applied, the leg being slightly flexed. Three interrupted sutures were placed in the external portion of the wound, to close up an opening caused by a portion of the skin being cut off by the strokes of the sickle. A roller bandage was firmly applied, from the toes to the knee, and a splint, with a foot-piece attached to fit the sole, applied to the inside of the leg and foot, to hold it straight, as it was inclined to turn inward.

As my object in the report of this case is not so much to give the treatment of the case in question, as to inquire whether tendons do reunite in open wounds or not, I would only say further, as to the treatment, that these appliances were removed every five or six days, and the limb thoroughly cleansed with carbolized water; and at the end of three weeks I applied the starch bandage, leaving off the splint. At the end of four weeks the starch bandage was removed, and a simple roller applied around the ankle. There was considerable swelling of the ankle, and discharge of sanious fluid from the wound, for several days, but no pus whatever. The patient was allowed to walk about on crutches at the end of five or six weeks, and directed to bear considerable weight on his lame foot. He gradually recovered the use of his foot, and when I saw him last, about eight months after the injury, he had nearly as good use of it as of the other.

In this case there is every reason to believe there was complete reunion of the fragments of the tendon. I related the case to Dr. Ezra Read, an aged and prominent practitioner of this city, a few days after its occurrence, and he gave as his opinion that the tendon would not unite. Dr. J. E. Link visited the case with me a few days after the first dressing, and it was decided not to remove the appliances. He expressed his doubts as to whether the treatment would result in the union of the fragments of the tendon or not. Robert Sterrett, medical student, assisted me in dressing the wound at my first visit. The sickle had passed fully an inch beyond the tendon.

Prof. Gross, in his work on surgery, says: "When a tendon is divided in an open wound, there is rarely, if ever, any spontaneous reunion, for the reason, first, that the ends retract too far to admit of thorough adjustment, and secondly, the wound nearly always suppurates, an occurrence highly inimical to adhesive action. All the earlier operations for tenotomy that were performed according to this principle failed, in consequence of the violence of the resulting inflammation."

He further says, "the treatment of a divided tendon, then, with an open wound, is very different from that where a wound is subcutaneous. In the latter the application of a bit of adhesive plaster to the puncture, to exclude the air, and a little attention to rest and position, make up the sum total of the surgeon's duty." "In the former, on the contrary, the cut ends must be carefully approximated by the silver wire suture, the remainder of the wound being firmly closed; or the limb with which the tendon is connected must be placed in the most thoroughly relaxed position possible, in order to approximate its extremities, and thus afford them an opportunity of reuniting, an occurrence, however, which will certainly seldom take place under any circumstances, however propitious."

Cooper, in his Surgical Dictionary, says, "Both in a wound and the rupture of the tendo-Achillis, the ancient method of using a suture for keeping the ends of the tendon in contact is at present quite exploded, and position of the limb is the great agent by which the cure is now universally accomplished."

According to Prof. Gross, divided tendons in open wounds seldom unite, on account of the violence of the inflammation, and the consequent suppuration. This case certainly was one in which such a result might be looked for, if it is so likely to happen in such wounds. The probability is that the ends of the tendon were very closely, if not fully approximated. This was inferred from the much wrinkled condition of the skin immediately above the wound at the time of adjustment, and the failure to detect any considerable vacancy between the ends of the tendon.

The question, then, may be asked, is the di-

vision of the tendons in open wounds followed by reunion as the rule, or only as the exception? Is the reunion so liable to be prevented by inflammation and suppuration as Prof. Gross would have us believe?

A CASE OF SYMPATHETIC OPHTHALMIA, WITH REMARKS ON THE EXCITING CAUSE OF THE DISEASE.

BY DANIEL B. D. BEAVER, M.D.,
Of Reading, Pa.

Sympathetic ophthalmia, in its rarer forms, is a disease of such infrequent occurrence in the experience of the general practitioner, and yet of such grave import, that it seems desirable to place upon record reports of cases. If they answer no other purpose, they may serve as reminders of the occurrence of the disease in the particular manner which they detail. With this end in view, the following report of an interesting case is offered:—

J. S. received an injury in the left eye in the summer of 1867, which was followed by loss of sight and atrophy of the ball. This eye was very painful, and the other unnaturally sensitive to light, for several months after the injury. The sight of the right eye, however, was not impaired. The pain and inflammation in the left gradually disappeared, and both remained free from uneasiness until January, 1878. Then, without apparent cause, he began to have periodic attacks of slight pain in the left eye, which generally came with changes in the weather. About the beginning of February the pain in the left eye would occasionally shift to the right; and at this time the vision of the right eye began to be impaired during the paroxysms of pain, whether they affected the one or the other eye. During the absence of the pain the sight would improve, to become again impaired with its next return; but after a number of obscurations and partial recoveries the sight remained permanently impaired, to such a degree that the patient was compelled to quit work. After being in this condition about a month, he presented himself, on the 8th of May, to me, for treatment. At this time the atrophied eyeball was painful to pressure, especially over the ciliary region, but there was no external sign of inflammation. The right eye showed a phlyctenula on the conjunctiva, which was the only sign of disease about it. V. $= \frac{20}{100}$; the pupil was normal; the ciliary region not abnormally tender to pressure; tension normal, and the field of vision not contracted. The pain in the eye was not severe, and had not been so at any time. With the ophthalmoscope, the fundus appeared somewhat indistinct, as though veiled with a very thin, grayish-white film, especially around the disk and along the blood vessels. The retinal blood vessels appeared slightly distended, but as there was no pulsation visible, and no second eye to compare with, this observation may not be correct. The patient's general appearance showed anæmia.

He was advised to have the atrophied left eye removed at once, but he would not consent. A course of medical treatment was then instituted, which was begun with a brisk purge, and counter-irritation to the nape of the neck. Then he was given two grains of iodide of potassium, with ten drops of syrup of iodide of iron, three times a day. He was also directed to drop a solution of atropine in both eyes, and stay in a dark room. His bowels were kept soluble with laxatives. This treatment was continued three weeks, without any improvement. After this loss of time, and useless medication, the patient agreed to have the eyeball removed. Accordingly, then, on the 28th of May, the writer enucleated it.

During the week following the operation no medicine was given, excepting an opiate at bedtime, and an occasional laxative, with the intention of ascertaining as near as possible the unaided effect of the enucleation. At the end of one week after the operation there was manifest improvement in the sight. On June 11th, V. $= \frac{20}{40}$; on the 14th, $\frac{20}{30}$; and July 15th, $\frac{20}{20}$. His sight has continued good to this date, February 14th, 1879.

The extirpated eyeball was very much atrophied, especially in the antero-posterior diameter. The cornea was almost entirely lost, evidently from suppuration, and what little corneal tissue was left occupied a small central depression in the otherwise flattened anterior surface of the ball. The cavity of the ball was filled with liquid, there being left no trace of either vitreous humor or crystalline lens. The retina, in its whole expanse, was detached from the choroid, and closed upon itself like the cloth of a closed umbrella, and thus extended from the optic disk to the ciliary body, at a point over the insertion of the inferior rectus muscle, where it was firmly attached by a dense inflammatory exudation. There were also bands of inflammatory exudation matter, which extended from this point to other portions of the ciliary body. The choroid was adherent, in all its parts, to the sclerotic. There was no foreign body in the ball.

Here was, then, the ciliary body entangled in and pressed upon by a mass of inflammatory exudation matter, and the retina, the prolongation of the optic nerve, bound down permanently by its extremity, in an abnormal position.

These anatomical changes naturally lead us to inquire as to the part these most sensitive structures may have played in the causation of the sympathetic disease; but it is not our intention to enter into the mazes of the theories and speculations that have, from time to time, been advanced on this point.

The most commonly received opinion at the present day is, that the disease is transmitted to, or excited in, the second eye, either through the ciliary nerves or the optic nerve, the weight of authority being in favor of the ciliary nerves. A few authors implicate the sympathetic with the optic and the ciliary branches of the fifth, and tell us that the irritation may be effected by the action the optic nerve has on the sympathetic through the trigeminus. The ciliary nerves, as is well known, comprise three kinds of fibres, motor, sensory and sympathetic.

In this case the ciliary branches of the fifth nerve were probably the first link in the chain by which the morbid process connected the two eyes. This view is supported alike by the clinical history and the anatomical changes in the enucleated eyeball. In the primary injury the cornea, iris and lens were wounded, which led to swelling and disintegration of the lens, and inflammation of the cornea, iris and ciliary body. The inflammation continued several months, extended to the choroid, retina and vitreous body, and caused liquefaction of the vitreous, complete separation of the retina, atrophy of the eyeball, and finally, adhesion of the extremity of the retina to the ciliary body. During this time the injured eye was very painful, and the other overly sensitive to light; but as soon as the pain disappeared from the one the hyperæsthesia left the other. Then, again, after the lapse of eleven years, when the secondary trouble began, the first and only symptom in the atrophied eye was pain, which appeared at irregular intervals. There was not even redness of the conjunctiva with the pain. After the paroxysms of pain appeared and disappeared a number of times the right eye began to sympathize and show signs of irritation during their presence; and occasionally the pain would shift to the right eye. Soon after this the sight began to be impaired during the attacks of pain, but would clear up again with their disappearance. But after changing thus for a short time, the sight became permanently impaired, and got a little worse with each return of pain. The succession of symptoms here shows that pain was the starting point of the sympathetic disease, and was present at each step in its progress. In the beginning of the trouble it was situated in the ciliary process of the atrophied eye, as shown by the tenderness to pressure over this part.

Now, then, as the trigeminus is the only nerve of common sensation within the orbit, its branches must have been the seat of pain in the atrophied eye; and as the irritation and pain in the fibres of the corresponding nerve on the other side were the first signs of disease in the sympathetically affected eye, it is probable that the irritation was carried by the left trigeminus to its centre in the brain, whence it was transmitted to the centre of the right trigeminus. After the nerve cells at the centre of the right trigeminus were thus irritated, their functional activity was increased, and they exalted ordinary impressions upon the ocular fibres of the nerve into sensations of pain. The condition of the right eye, then, in regard to the state and action of the nerves supplying it, was the same as though the fibres of the fifth nerve had been directly irritated, and the same "reflex phenomena" as would arise from a wound of the eye might be expected to appear. In this connection may be mentioned the following interesting case of partial paralysis of the third nerve, with apparent paralysis of the retina, caused by a wound with the spout of a small coal-oil can, which came under the observation of the writer recently. The end of the spout was accidentally run into the eye, between the ball and the nose, over the tendon of the internal rectus muscle, making a wound four lines long, in the conjunctiva. The wound cannot have been very deep, because it was already healed when the patient presented himself, one week after the accident. The levator palpebræ and all the intra-orbital muscles supplied by the third nerve were partially paralyzed, and the pupil dilated. Vision = qualitative light perception; no objects could be distinguished. The patient declared that the sight of the eye was good before the occurrence of the accident, and there was nothing visible in the fundus to cast any doubt upon his statement. The media of the eye were perfectly clear. There was no sign of disease in the retina or choroid. The refraction was normal. The optic disk was a trifle paler than that of the other eye, and the retinal blood vessels seemed smaller; but these differences were too insignificant to account for the complete loss of sight, and might

be explained as resulting from the loss of function of the part. This was evidently a case of paralysis of the third and optic nerves, caused by direct irritation of the fifth nerve—a case of "reflex paralysis." Returning now to the sympathetically affected eye, it may be said that after the irritation had reached the centre of the right trigeminus the sympathetic irritation had already assumed the form of a primary irritation, differing from it only in the fact that the cause of the morbid process acted in the nervé centre instead of on the periphery. The results were the same.

This view of the manner in which the irritation is transferred from one eye to the other is in accordance with a few well known physiological and pathological facts. It is a well-known fact, and can be shown on any healthy pair of eyes, that light admitted on the retina of one eye will affect the pupil of the other. If one be kept open, its pupil will be seen to contract and dilate with the opening and closing of the other. The impression of the light, then, must be carried, either by the optic nerve to the optic centre in the brain, thence to the centre of the third nerve on the same side, and from there to the corresponding motor centre of the other side; or, by the optic nerve, through its centre, directly to the motor centre of the other side. But as both pupils move with the opening and closing of one eye, the motor centres of both sides must be excited by the impression of the light on the one retina, whether it reaches them by one route or the other. In either case close connection between the centres of the opposite oculo-motor nerves is necessary to produce this effect.

If this be true of the third, as it is of some others, it may be inferred that there is also a direct means of communication between the centres of the fifth, by which impressions coming from the periphery may pass from one side to the other. This transfer of irritation from the fifth of one side to that of the other side is frequently observed in those cases of dental pain caused by a carious tooth, in which, after a time of aching in the sore tooth, all the teeth in the other side of the same jaw become painful. Of central irritation (as we supposed existed in the centre of the right trigeminus in our case, before the vision was impaired, and afterward), causing eccentric pains, and even trophic changes, instances are frequently met in practice. Spinal irritation and sclerosis afford good examples of such cases. What is true of this case will probably apply to most other cases of sympathetic ophthalmia. What other route could the pain take in going from one eye to the other? The optic nerve, it is well known, has but the one function, of transmitting to the brain impressions of light. It is true that these impressions may be reflected to the third or fifth nerve; but in disease or injury of one eye, followed by sympathetic disease of the other, the function of the retina and optic nerve is abolished, in nearly all cases, some time before the appearance of the sympathetic affection. The lens is frequently opaque, and the pupil generally closed, so that light is entirely excluded, and can, therefore, make no impression upon the retina to be transmitted anywhere. Furthermore, the most frequent causes of the disease are injuries and diseases of the anterior part of the eyeball, the iris, ciliary body and cornea, while uncomplicated affections of the retina and optic nerve seldom give rise to it. Irritation of this nerve with electricity gives rise only to appearances of light, that is, it excites the function, as in sensory nerves it excites sensation, and in motor nerves motion. Is it not probable, then, that if it is instrumental in carrying irritation from one eye to the other, it does so indirectly, through the centres of the trigeminus in the brain, or through the sympathetic? Of the former, it need only be said, in addition to what has already been stated of the fifth nerve, that pain, like healthy nerve force, and other natural forces, does not take an indirect route when a direct one is open, as is always the case in the primarily injured and painful eye, through the fifth nerve.

That the sympathetic takes part in an indirect and circuitous transmission of irritations from one eye to the brain and thence to the other eye, in cases of sympathetic ophthalmia, is, as already mentioned, believed by a few observers of good reputation; and in the light of the present knowledge of the physiology of this nerve, and with the present fashion of ascribing nervous phenomena which are otherwise unexplainable to reflex action through the sympathetic, this theory seems plausible; but there are a few facts which may be mentioned as seeming to point the other way.

The word irritation, as generally used, means increased functional activity of the part irritated; and this is the sense in which it is here used. When the sympathetic in the neck is irritated, the blood vessels of the corresponding side of the face contract, and the pupil dilates, but sensation is not affected. On the other hand, when it is cut, its function is destroyed, the blood vessels dilate and the pupil contracts—precisely the conditions found in painful inflammatory diseases of the eye. When an eye is

hurt, even slightly, as by pinching up a fold of the conjunctiva, there is first pain, then dilatation of the blood vessels immediately around the seat of pain, lachrymation, and, if the pain continues some time, contraction of the pupil. These symptoms cannot be due to irritation of the sympathetic, for they are the same as result from complete destruction of the function of the nerve. Besides, it is found that the sympathetic fibres in the iris are active only when the organ is in a state of rest; when the eye closes the pupil dilates, while, as soon as it is opened, the third, fifth and optic nerves are called into action, and the influence of the sympathetic subsides. The same is true of the sympathetic in all the diseases of the eye in which the function of the organ is impaired and this nerve becomes active, that is, the pupil dilates in a direct ratio with the loss of sight. This is observed in diseases of the optic nerve, cataract, and diseases of the retina. On the other hand, when there is disease implicating the sensory nerves of the eye, when there is pain and inflammation, the pupil contracts and the blood vessels dilate; in other words, the sympathetic is either overpowered by its antagonist or paralyzed. In either case it seems probable that the active or most highly irritated nerve would be the one to transmit irritation to other parts. These facts seem to indicate that the functional activity of the eye is derived from the brain, through the sensory and motor nerves, and that the office of the sympathetic is to exert an inhibitory influence; the cerebro-spinal influence is active, and the sympathetic passive.

If the theory of the cause of the disease in the case here related is correct, and applicable to other cases, it indicates the importance of allaying pain in primary disease of the eye as a preventive against sympathetic disease. Other interesting features of the case, from a clinical point of view, are, the insidious onset and course of the disease, the long period of quiescence between the subsidence of the primary and the outbreak of the sympathetic disease, and the prompt effect of the enucleation. In the greater number of cases the disease appears within two months after the primary affection. The slowness and the uncertain steps with which the disease came on, and the frequent recessions during the early part of its course, led the patient to think it of little importance, until the sight was permanently impaired. The recollection of such cases should arouse our suspicion of the approach of the disease whenever we are called to a case of defective vision in one eye accompanied by pain and loss of sight in the other; and if the report of this case will serve this purpose in a single instance, the writer's object in presenting it will be gained.

GUNSHOT INJURY, INVOLVING THE SECOND DORSAL VERTEBRA.

BY STEELE BAILEY, M.D.,

Of Danville, Ky.

Read before the Central Kentucky Medical Association.

The following interesting case is only another illustration of the almost invariably fatal result which attends gunshot injuries of the bodies of the dorsal vertebræ, with consequent lesion of the spinal cord.

It was not complicated by injury of the lungs, else it would have terminated fatally at an earlier date. Death ensued from secondary causes, general exhaustion and debility, on the twenty-third day after the infliction of the wound. This case will be especially remarked because of the prolonged interval between the reception of the injury and the fatal issue. Also, an interesting feature observed in this instance was priapism, which was noticed a few days after the reception of the wound, lasted for a certain time, then quietly subsided. In examining the "Surgical History of the War of the Rebellion," edited by Dr. Otis, I cannot find an instance in which this symptom was so prominent and permanent; and therein but three cases having this symptom are reported, all of the cervical region.

Hiram Tucker, of spare, delicate build, was shot at a "barbecue" at Squirrel Spring, in Lincoln county, Ky., about five o'clock in the afternoon of the 3d of August, 1878. He was quite intoxicated at the time, and fell with a heavy thud upon the ground, as if lightning-struck; reaction followed in a short time. As soon as a wagon could be procured he was taken home, a distance of two miles, placed in bed, and whisky given him. His place of living being six miles from Stanford, and a messenger despatched directly after the shooting, I did not reach him until half-past eight o'clock at night, and found him calm, entirely sensible, his pulse slow, and at intervals inclined to be drowsy, though he didn't sleep until after the hypodermic injection of half a grain of morph. sulph., and then only at intervals. On examination, I found the ball had entered at a point midway between the root of the neck and top of the right shoulder joint. The wound was a small hole, circular, and incapable of admitting the

little finger, but a long, silver probe being introduced, the track of the ball was obliquely toward the spinal column. This instrument giving him pain, I desisted from further efforts, thinking such exploration would be as useless as it would be mischievous. There was but little bleeding, a slight oozing from the orifice, and pain was complained of only in the right arm, which he was able to use, as he was that of the left. This pain he described as spasmodic, jerking, twinging, and the ring and little finger, and corresponding part of the palm, felt as if they were asleep. At times he had a feeling of tingling and numbness in the left arm. He was unable to move the lower extremities, but, as intoxication was still existing, I reserved my diagnosis till next morning.

He was very thirsty, and drank a great deal of water through the night, and toward morning threw it up as soon as it became warm in his stomach; this was, however, the only vomiting he did during his illness. The urine having been retained since the reception of the wound, about three pints of offensive water was drawn, with a flexible catheter. The next morning, the effects of the "apple jack" having passed away, it was found that his body and legs were completely paralyzed; there was neither sensation nor motion from the top of the sternum to the soles of the feet. The breathing was but slightly affected, the number of respirations not averaging above twenty-four per minute. Weakness, from nervous shock, was complained of, but no pain, except that in the right arm, as before mentioned, along the course of the ulnar nerve; and it was observed that he could grasp less firmly with this hand than with the left. After the lapse of a few days he ceased to complain of this trouble, but felt a sense of soreness in both the right and left sterno-cleido muscles when they were pressed upon, and now a bronchial respiration was noticed in the upper lobe of the left lung.

His bowels being torpid, an enema was given him the second day, but this one clyster sufficed; the abdomen soon afterward became tympanitic; there was no power over the anal sphincter; dark fæces involuntarily passed, for a period of seventeen days. The dribbling produced a partial evacuation of the bladder; his attendants were taught the use of the catheter, and the organ relieved three or four times within the twenty-four hours, and at my visits, occasionally, washed out. The urine was dark, thick, and strongly ammoniacal, characteristic of lesions of the spinal cord. His ordinary mode of lying in bed was with his hands clasped over his head, and when tired of this, he would ask his attendants to place them beside him. The breathing was easier when he was propped with pillows, in the semi-prone position; to sit him up straight, or let him lie perfectly flat, produced hurried respiration and much weariness.

A frightful bedsore, over the sacrum, made its appearance about the eighth or tenth day, which continued to spread, despite every expedient adopted for its relief. In the absence of a water-bed, a ring of hair was used; the parts washed with carbolic soap twice daily; charcoal sprinkled over the black slough, and afterward covered with a yeast poultice; iodoform, which is a healing and soothing application to spreading sores, was employed; carbolic acid and vaseline; nitrous ether solution of argent. nitratis, fifteen grains to one ounce; quinine, dissolved in ether sulph., were also employed, but to no avail; the sloughing of tissues continued until the lower lumbar and sacral vertebræ were exposed. Fever was present every day, a variation of from two to three degrees between the morning and evening temperature. The morning temperature averaged about 101°, Fahr., that for the evening (from 4 to 9 P.M.) ranged from 102°, 102½°, to 103°, Fahr.

Priapism, which sometimes supervenes upon injury to the spine and cerebellum, came on, in this case, about the ninth day, and lasted, with but few remissions, for eight days, when it passed off and was seen no more. The penal organ, which was worthy of Mahomet, presented a ludicrous spectacle, with but a single cotton sheet to cover it, causing no little embarrassment to himself and friends, who shielded the "flute" with evident care. The erection was completed during the evening's exacerbation.

The slow fever, repugnance to food, together with the "toasting" heat of August, produced great emaciation—a skeleton of skin and bones. The muscles of the neck were skinny, the arms, and especially the thighs, were atrophied; the pulse now became weak and frequent. The most concentrated, nutritious food and stimulants were given him; there was no gastric irritability, yet the most tempting viands were loathed; only soft, ripe apples were the least palatable. His mind remained clear and calm during his entire illness; no disordered speech or defective ideation; no frettings, no impatience; no headache, and on but one or two days did he complain of glimmering, bright, zig-zag lines, corruscations, etc., and this trouble I attributed to a few doses of croton-chloral, which had been given for its hypnotic effects. According to Ringer, this remedy some-

times produces a peculiar affection of the sight, beginning at the centre or circumference of the visual field. The wound of entrance never entirely healed.

This man was a brave, generous one; a true Stoic; not a murmur escaped his lips, although his emotions were played upon by the recital, by his friends, of the cowardly deed that had laid him prostrate; of the slow wheels of justice in arresting the assassin, etc.

Neither this, nor the friendly talks of ministers of the Gospel who came to give him spiritual comfort, caused the pent-up tide to give away. He died at noon, in a convulsive seizure, after an attempt to eat some food, on the 26th of the month, and the twenty-third from the day of the accident.

On a post-mortem examination, thirty hours after death, present Drs. Peyton and Craig, the second dorsal vertebra was removed and examined, and found to contain the track of the ball; the spinal marrow was disintegrated and in a fluid condition. There were adhesions over the right upper lobe, and small, smooth-walled, cyst-like spaces at the apices of the lungs. Irregular, puckered, characteristic scars were scattered through the lung tissue. This man had had, some years before, bronchial hemorrhage, frequently repeated, with a sharp, irritable cough afterward, and expectoration of small, yellowish masses; and during the colder months of the year, he often spat up a fluid sputa. The other organs of the body were not examined.

Hospital Reports.

KING'S COUNTY HOSPITAL, FLATBUSH, L. I.

SERVICE OF J. C. HUTCHISON, M.D.

Reported for the Medical and Surgical Reporter, by A. F. Bristow, M.D.

Transfusion of Blood (Aveling's Method); Transfusion of Milk.

John McMorrow, Ireland, aged 40, laborer, was admitted to the hospital Dec. 31st, 1878. He had always enjoyed good health until about two months previous to admission, when he began to suffer from pains in the calves of the legs, and from shortness of breath on any unusual exertion. His appetite gradually failed and his strength diminished, until he was unable to work or help himself. He was in this condition when brought to the hospital for treatment. He presented the appearance of a man who had had an exhausting and sudden hemorrhage, and seemed to be completely exsanguinated. His face and hands had a dirty, waxen appearance. Even his lips were white, and he was scarcely able to sit up in bed. Yet he was a man of more than ordinary physique, and the closest physical examination failed to discover any organic lesion competent to reduce him to his present condition. The only physical sign of any moment was a diffused heart murmur. He had no history, however, of rheumatism, beyond the pains in the legs, and he said he never had venereal. His family history was good. The diagnosis was pernicious anæmia, and other means having failed, and it being very evident that the man was sinking, transfusion of blood was determined upon, and the patient consenting, the operation was performed Jan. 16th, by Dr. Hutchison. The direct method was employed, and Aveling's apparatus used, Dr. Calhoun, one of the resident assistant physicians, furnishing the blood. The apparatus being first filled with warm, salt water, the median cephalic veins of recipient and donor were opened, and the canulæ inserted into the respective veins. The bulb of the apparatus was then compressed, and about four ounces of blood slowly thrown into the patient's circulation. The donor then suddenly became faint, and his vein did not flow readily nor furnish blood enough to fill the bulb of the apparatus. At this point, in some way, the joint between the tube and the canulæ became loosened, unperceived, and allowed air to enter the bulb, which immediately entered the vein of the patient with a loud, gurgling noise. After waiting a short time, and no unpleasant symptoms making their appearance, an attempt was made to continue the operation, but the donor's vein would not yield sufficient blood, and the operation was discontinued. There was no very marked alteration in the pulse, and no change whatever in the respiration. About two hours after the operation he was taken with a chill, after which his temperature rose to 100⅗°, but during the week subsequent it fell again to within half a degree of normal.

Dr. Calhoun, who furnished the blood, though repeatedly warned to leave the operating room, insisted upon remaining, and was present at the subsequent operations, one of which was an amputation, for knee-joint trouble—chronic suppurative arthritis. He afterward went about and performed his hospital duties as usual, and declined to be retired from service at all. He continued in his usual health until the third day after the operation, when a circumscribed redness, about three inches in diameter, appeared about the wound, and a more diffused blush extending over a large portion of the arm and forearm. The veins themselves could not be traced, nor did there seem to be any inflammation of the lymphatics. The symptoms, however, became more serious, and deep-seated cellulitis of the arm and forearm soon declared itself. The temperature ran up very rapidly, and during the third and fourth days of the attack the thermometer marked 104° and 105° in the axilla, and the patient was delirious at intervals. So serious were the symptoms that grave fears were entertained for the doctor's life. A supporting treatment was adopted, and fortunately the phlegmonous inflammation did not extend beyond the arm and forearm, but finally terminated, two weeks afterward, in three points of suppuration, two in the forearm and one in the arm, all of which abscesses were opened. The doctor was left,

however, in a very weak and nervous condition, but happily is now progressing toward complete recovery. In connection with this feature of the case, it may be of interest to compare it with another instance, somewhat similar, where, however, the inflammation did not confine itself to the extremity. An interne of St. Peter's Hospital, while making a post-mortem on a case of empyema, received a scratch on one of his fingers. A somewhat similar inflammation followed, but unfortunately, instead of restricting itself to the arm, involved the thorax on that side, and terminated in empyema, cellulitis of the chest wall, and minute pulmonary abscesses, finally resulting in death. This happened about two years ago. It seems difficult to say why the inflammation in one case restricted itself to the extremity, while in the other case, where the origo mali seemed so insignificant, comparatively, the mischief should have been so widespread and fatal. The writer was acquainted with both gentlemen, and as far as physical condition went, they were on a par, each being in ordinary good health.

The week after the operation the recipient, Morrow, grew weaker, and had frequent attacks of epistaxis. He was unable to assimilate any food, and without any discoverable organic lesion, a man of excellent physique yet lay dying, almost, from inanition. His appearance was, if possible, more exsanguine than ever, and it was determined to try transfusion of milk.

Accordingly, one week after the first operation the median cephalic vein of the other arm was opened and an attempt made to inject fresh milk. The vein, however, was very small, much smaller than that in the other arm, and this was a source of some trouble and delay, the milk flowing very slowly. The apparatus used consisted simply of a funnel-shaped glass vessel, holding about ten ounces, and having a rubber tube with two bulbs attached to the lower end, furnished with a stop-cock. A canula filled with water was introduced into the vein, and the tube, filled with the milk, was then fitted upon the canula. The vessel was then elevated, the stop-cock turned and the fluid allowed to run into the vein by force of gravity. There was considerable leakage at the point of junction of the canula and the tube, the milk oozing out quite rapidly, often, but the joint was tightened and the fluid ran slowly into the vein. About six ounces of the fluid was injected. The milk was fresh from the cow, and was kept at a temperature of 100° by wrapping hot cloths around the vessel. To eight ounces of the milk one ounce of a weak solution of ammonia carbonate was added, Dr. Hutchison, in this connection, remarking that the milk injected ought always to be alkaline. It was often, however, acid. During the operation, which was lengthy, because of the small calibre of the vein, the patient made no complaint of difficulty of breathing or other discomfort, except at one time, when he said he felt a sense of oppression about the heart. This speedily passed away. In regard to the introduction of air into the veins, Dr. Hutchison called attention to the fact that although in the previous operation this accident had happened to the patient, yet he had suffered no inconvenience whatever therefrom. He remarked that in his opinion this danger had been somewhat overrated, and that in the veins of an extremity certainly there was not the same peril accompanying the introduction of air as in the great vein of the neck or thorax, which communicated directly with the heart in almost a straight line. Certainly, here was a case where a considerable quantity of air had passed into the median cephalic vein, yet not a single uncomfortable sensation had followed, much less any dangerous symptoms.

During the week subsequent the patient was much improved, although at times he was delirious, and said afterward that he did not know night from day. Yet there was no febrile movement whatever. The pulse became fuller and stronger, and gradually the appetite returned, and the case steadily improved. At this date, three weeks from the last operation, the patient seems on the road to complete recovery. He walks about the ward occasionally, though still weak; the color has returned to his face; his pulse is quite full and strong, and the improvement is steady. The heart murmur still remains, however. With this exception everything seems to bid fair for the man's recovery to health and strength. The cause which produced such a sudden and complete failure of the blood-making function remains entirely unexplained, as the man has never been sick before in his life, and can give no further account of his present illness than that in two months, without any actual sickness he gradually failed. He gave no malarial history, nor, indeed, any beyond that here given.

LONG ISLAND COLLEGE HOSPITAL.

UNDER SERVICE OF DR. BURGE.

Reported for the MEDICAL AND SURGICAL REPORTER, by MORGAN L. WOODRUFF, M.D.

A Case of Congenital Hernia, with Extraordinary Complications.

Joseph Graham, aged two years and three months, entered Long Island College Hospital Sept. 30th, 1878. His history, as given by his parents, is as follows: When the child was six weeks old the family physician discovered a hernia in the right inguinal region. A truss was fitted at a local dealer's, and worn for two months. This frequently caused such severe pain, owing to poor adjustment, that it was abandoned. Subsequently other trusses were applied, at the "Asylum for Ruptured and Cripples," at Lexington Ave. and 42d street, New York, until the patient was over a year old, being constantly worn during this time. The last truss, becoming useless, was thrown aside, and the child remained without one, as he did not complain, and the hernia seemed to have disappeared.

After three months without treatment, a tumor again appeared in the same region. The patient was taken to an institution in New York, for treatment. After a consultation, the surgeons declared that the present tumor was not a hernia, and expressed doubts as to whether one had ever existed. A topical application was prescribed, to be painted on three times daily. This soon

vesicated the parts, and its reapplication became extremely painful. After persevering with this treatment for a month, without improving conditions, it was abandoned.

For the time, all treatment was suspended. The tumor appeared and disappeared, according as the perpendicular or horizontal position was assumed by the patient. It caused no pain. This state of affairs continued until Sept. 27th ult., when the tumor rapidly enlarged and became very painful. When the patient was admitted to this Hospital, three days later, the tumor was large and painful, the child remaining in one position and very irritable if moved. Attempts at reduction were made by Dr. J. S. Wight. The result was a gurgling sound and partial disappearance of the tumor. Deeming it objectionable to manipulate further, after twenty minutes, and no urgent symptoms being present, a hot poultice was applied, for several hours.

Oct. 1st. Tumor had regained its former size during the night. Taxis again employed by Dr. Burge, with a result similar to that of yesterday.

Oct. 2d. Tumor this morning as large as before. That portion which remains unreduced is hard and "boggy" to the touch, strongly suggesting omentum. Prescribed tinct. opii deodorata, three minims hourly, to procure sleep. An injection of hop tea caused a healthy movement of the bowels. Taxis was attempted, with a result similar to that previously stated.

Oct. 3d. This morning noticed a slough, three-quarters of an inch long and one-third of an inch wide, situated to the right of the median line and posterior to the scrotum, where a portion of the tumor had appeared harder than at any other point, and crepitations existed the night previous. The opiate was increased to six minims hourly.

Oct. 4th. Gave nine minims tinct. opii deodorata last night. Patient passed a comfortable night. Size of slough is increased. Other appearances about the same.

Oct. 5th. Early this morning had a spontaneous movement of the bowels. At ten A.M. a second, and at seven P.M. a third, all soft in consistence. The slough is increasing in diameter and depth. Discharge is sero-purulent and offensive. Patient takes milk diet readily.

Oct. 7th. Had a pleasant day yesterday. Craves meat. Bowels free. As Dr. Burge was examining the cavity formed by the slough, he discovered and drew from the wound a brass pin, which was black and corroded. It was directed downward and to the right, point first. The mother of the patient once saw him with pins in his mouth, though she saw no symptoms of his having swallowed one.

Oct. 8th. His bowels moved freely this morning. No fecal matter has yet escaped from the wound, as was anticipated.

Oct. 14th. Patient is improving, both locally and in general health. Tumor is enlarging.

Oct. 15th. A second opening appeared upon the scrotum, just beneath the penis and to the right of the median line. A large quantity of sanious pus escaped. Size of tumor greatly diminished.

Oct. 16th. Tumor nearly gone.

Oct. 17th. Improving.

Oct. 18th. About four P.M. fecal matter escaped through the first wound. A few hours later bowels moved naturally.

Oct. 21st. Since last writing the case has progressed favorably. The bowels are quite free at night, but quiet during the day. Nothing has passed through the fistula since the second day of its appearance. The wound is looking healthy and filling with granulations. A spontaneous closure of fistula is anticipated. At the request of parents the patient was discharged, and will return as an out-patient.

Oct. 24th. Patient returned to-day. Fecal matters are again passing from the fistula, which is somewhat larger. Passages thin and natural in color. The wound is in a healthy condition. He has the sore mouth of sprue. Prescribed—

℞.	Eucalyptus globulus,	ʒj
	Glycerine,	℥ ss
	Saturated sol. soda boras.,	ʒ ij. M.
	Ft. gargarismata.	

Oct. 31st. The mouth is improving. There is some indigestion. The fistula is larger. Most of the fæces are discharged through its orifice. Prescribed, for indigestion—

℞.	Hyd. chlor. mite,	gr.j
	Sacch. lactis,	gr.iij
	Bismuth subcarb.,	gr.ij. M.
	Div. in pulvis No. 3.	

Sig.—One, night and morning.

Nov. 11th. The mouth and indigestion are well. The patient's mother states that the size of the fistula increased since last visit, but has since closed gradually, so that nothing passes that way at present. Local treatment has been simply cleanliness and a compress of lint, with carbolated zinc oxide ointment as a dressing.

Nov. 14th. Fecal discharges again passing by the fistula, often in large quantities. General health is good.

Nov. 26th. No fæces passed through the fistula for eight days.

Dec. 3d. Fistula is entirely closed and the surface of the wound is granulating nicely. The hernia has again appeared, for which a truss has been adjusted.

Feb. 1st, 1879. Patient is well in every respect except the hernia, for relief of which a truss is constantly worn.

Alum in Chronic Dysentery.

In an obstinate case of this disease, Dr. Mader, a Russian physician, treated his patient with a solution of alum, which was injected into his bowels immediately after each evacuation, and which he was directed to retain as long as he could. This remedy proved successful, the patient only complaining of a burning pain in the rectum while it was being thrown up, but feeling much relieved afterward. The motions then gradually began to present a better appearance; no more blood or pus was noticed in them; they became more solid, and a fortnight after the first injection had been administered the patient was dismissed as cured. The strength of the solution was four teaspoonfuls of alum to a pint of water.

EDITORIAL DEPARTMENT.

PERISCOPE.

On a Neglected Proximate Cause of Dyspepsia.

In a recent paper on this subject, Dr. Leared, of London, argues that in a large proportion of dyspeptic cases the fault does not lie with the gastric juice *per se*, but with the muscular structures of the stomach. Owing to nervous debility, the peristaltic movements of the organ are more or less diminished, or even arrested. The result is that the food, not being duly submitted to the action of its solvent, in part ferments, and the gas evolved distends the stomach. This distention tends to impair the tonicity of the muscular fibres still more, so that, in some cases, the stomach may be said to be paralyzed. The remarkable way in which stirring aids the solution of soluble substances in water was adduced by the author in proof of his position. Although the revolution of the morsels of food was graphically described by Dr. Beaumont, from actual inspection, he failed to grasp their importance in relation to pathology. Instead of the old division of atonic dyspepsia and dyspepsia dependent upon gastritis, Dr. Leared proposed to divide dyspepsia into that from impaired motion and that from defect of secretion; and he maintained that by further subdivision all varieties of true functional dyspepsia might be ranged under these two heads. The difference in origin of the proximate causes was also pointed out, and the treatment of impaired peristalsis was explained at some length. Diet was held to be of great importance; and among remedies, strychnia was foremost. This drug, properly handled, the author affirmed to be almost a specific for relaxation of the gastric muscular fibres.

A Practical Diet Table for Diabetics.

A distinguished physician of this city has handed us the following bill of fare, which is the result of the experience of a sufferer from diabetes, to whom these foods have proved not only unobjectionable, but conducive to a cure. In view of the fact that the highest medical authorities have decided that medicines are of little or no avail in this disease; that the chief reliance is upon appropriate food; that improper food surely encourages the disease, while suitable foods unfailingly retard its progress, and that very few who suffer from this trouble are accurately informed as to what foods are admissible and what are objectionable or dangerous, he offers this list, as containing nothing which has proved injurious in his own case.

The suggestions in regard to bathing, exercise, and most of the foods, are the results of his consultations with eminent medical men in America and Europe, among whom may be mentioned Professor Bouchardat, of Paris; and their value as curative agents are borne out in his own experience.

As the elimination of sweets and starches has proved beneficial in nervous prostration and brain exhaustion, it is believed that the following bill of fare may be wisely adopted by all nervous sufferers:—

OYSTERS AND CLAMS,

Raw, or cooked without flour mixtures.

SOUPS.

All those without flour, rice, vermicelli or other starchy substances, or the prohibited vegetables.

FISH

Of all kinds, including lobsters and crabs.

MEATS

Of all kinds, more particularly beef and mutton (liver not used); also tripe, ham, bacon and sausages.

POULTRY AND GAME

Of all kinds. Avoid sweet jellies and sauce with the game.

SALADS

In all varieties except potato. Use freely of spinach, lettuce, watercress, Brussels sprouts, chiccory, dandelions and cold slaw; also olives. Cabbage in all forms especially valuable.

VEGETABLES

Of all kinds except potatoes, beets, carrots, turnips, parsnips, peas, beans, rice, or those containing sugar or starch. Young onions have been found particularly valuable. Sour apples cut in quarters, dipped in beaten eggs, rolled in cooked gluten, and fried in very hot fat, make a good substitute for potatoes.

FRUITS.

All kinds of tart fruits. Peaches and strawberries in profusion, with cream (no sugar).

MILK

In moderation. Cream, butter, buttermilk, and all kinds of cheese freely.

BREAD.

Only that made from wheat gluten flour. From gluten a number of palatable breads, rolls, pancakes, fritters, crullers, griddle-cakes, mushes and puddings are made, rendering ordinary bread unnecessary.

NUTS.

Almonds, walnuts, Brazil nuts, filberts, pecan nuts and butternuts. They should be freely salted.

PASTRY.

None, unless made from gluten flour, without sugar.

EGGS.

Plenty of them. If boiled, let the time not exceed two minutes. Use in any way except in sweet omelettes and custards.

Pickled codfish, with eggs. Scrambled eggs, with chipped beef.

COFFEE AND COCOA.

Moderately, with glycerine (no sugar). Cereal coffee particularly recommended. Tea objectionable.

SPIRITS OR LIQUORS.

None, and no wine, except claret, Burgundy, Rhine, or other acid varieties, in moderation. Claret preferred. No malt liquors.

Eat slowly, and in moderate quantities. Take as

little liquid as possible during meals, and throughout the day.

The tendency is to a dry skin, and perspiration being highly important, frequent warm baths are advised; the evening is the best time. Cold or tepid baths may be taken with advantage in the morning, exercising afterward, to restore the circulation. Turkish baths are also recommended once or twice a week, if approved by your physician. Exercise as freely as possible in the open air, and sleep eight hours of the twenty-four.

Early Symptoms of Stone in the Bladder.

Mr. W. F. Leevan, in the *British Medical Journal*, gives the following list of the early symptoms of stone; a matter of great importance:—

1. *Frequency of Micturition.*—So soon as there is a foreign body in the bladder, it gives rise, by the movements impressed on it by changes of position, exercise, and the muscular efforts of micturition, to some irritation; and the earliest expression of that irritation is increased frequency of micturition. The increase in frequency will depend greatly on the character of the stone. A small oxalate of lime calculus, which jumps about the bladder with every change in the patient's position, may give rise to excessive frequency; whereas a large, smooth, phosphatic stone, lying quietly behind the prostate, may occasion but little increase. This symptom, *per se*, is not of much value, because nearly every disease of the bladder, prostate, or urethra, is accompanied by increased frequency of micturition. Then, again, very few men note how often they urinate in the day; so that the interposition of some half-dozen acts of micturition in the day may pass unnoticed, whereas, if it occurred at night, it would be sure to attract attention. Now, as a stone usually gives rise to but little annoyance at night, you see that frequency of micturition, taken *per se*, carries but little weight.

2. *Difficult Micturition* is a common symptom in the early stage of the complaint. The smaller the stone the greater the chance that the flow of urine will carry it into the neck of the bladder, and even into the urethra. The larger the calculus, the more it tends to settle down behind the prostate, especially if the gland be enlarged, and there to lie quietly. The prostate acts as a barrier, when enlarged, between the neck of the bladder and the stone. Boys really have no prostates; that is to say, the gland in them is so rudimentary that it may be disregarded. Consequently, boys usually have a great deal of pain in micturition; the stone rolling to the neck of bladder, and forming an impediment to the escape of the urine. One of the marked effects of this interference is exhibited in the way of priapism, rare in adults, but very common in boys.

3. *Pain.*—This is a very variable symptom, though usually present in some degree or other. Whether it be severe or not will depend on the character of the calculus and the nature of the exercise taken. For instance, a clerk, who walks to and from his office at a quiet pace, and sits on a stool all day, will suffer but little inconvenience; whereas a hunting man will be made aware of the presence of a stone. Ten to one that, when he gallops on horseback, he will experience some disagreeable sensation at the end of the penis, and will be frequently obliged to dismount to pass urine. Although hunting has caused many deaths, yet I am sure that, on the other hand, it has saved many lives. Men who hunt are just the subjects for uric acid calculi; and in them the existence of a stone usually makes itself known at a very early period, so that by the intervention of lithotrity they are spared the risk of losing their lives by lithotomy. In children, pain makes itself very evident, for they cry out when passing urine, and rub the penis and squeeze it, to mitigate their sufferings.

4. *Blood.*—Whether blood is seen or not will almost entirely depend on the nature of the stone and the character of the exercise taken. A small oxalate of lime calculus in a man who rides will almost certainly cause the escape of a few drops of blood, whereas a large, smooth stone, in one who leads a sedentary life, may not cause any hemorrhage. It is well to remember that the blood is usually passed in drops at the end of micturition; and that it generally has a florid aspect, different from bleeding from the kidney. The man whose kidney bleeds passes bloody urine, whereas a patient with a stone in his bladder passes urine and then blood.

5. *Altered Condition of Urine.*—This is probably the most untrustworthy symptom. Perfectly clear urine is quite compatible with the presence of a large stone, whereas a little mulberry calculus may cause great alterations. Remember, I am alluding to the earlier symptoms of stone, not the later ones.

6. *Retention of Urine.*—This is very common in boys, but rare in adults. If a boy suffer from retention, and there be no phimosis to account for it, a diagnosis of stone may safely be made.

7. *Prolapse of the Rectum.*—This is common in boys, but very rare in adults, although they often complain of tenesmus when urinating or defecating.

8. *Incontinence of Urine.*—This is a symptom but little known or attended to. It was pointed out by Civiale, and a knowledge of the fact has enabled me to suspect, detect, and remove calculi in boys who have been subjected to a course of sea-bathing and tonics. When a stone is impacted in the commencement of the prostatic urethra, it gives rise to retention; for the sphincter of the bladder embraces the foreign body tightly, and accurately fills up the sinuosities in the stone, so that the urine cannot escape. If, however, the calculus advance half an inch further, it acts as a gag and prevents the sphincter vesicæ from closing, so that the urine continually escapes along the sinuosities in the stone.

Lastly, there are a certain number of aches and pains under the head of "Anomalous Symptoms." I mention them simply as surgical curiosities, such as pain in the scrotum or down the arm or thigh.

—Dr. C. C. Vanderbeck sails for Europe on the 27th, to visit England and France. He will correspond with the Reporter during his absence.

THE

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D. G. BRINTON, M.D., EDITOR.

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THE DISEASES OF THE LOWER ANIMALS, IN THEIR RELATIONS TO THE DISEASES OF MAN.

Students of epidemic and constitutional diseases have lately waked up to the fact that they can no longer confine the study of morbid conditions to the human race, if they would attain any general and accurate knowledge of their etiology. Yet without such knowledge of causes, neither prevention nor cure is possible, except by hap-hazard and empirically. Therefore, it is fast becoming apparent, that to the present curriculum of the medical student will have to be added a course on comparative pathology, or that the chair of the Theory of Medicine will have to cover much of what is now known as Veterinary Medicine.

The intimate relation which we are now learning exists between the diseases of domestic animals and of those who own, use and eat them, has been the subject of a number of articles in the leading English journals lately, and at the meeting of the London Pathological Society, in January last, it was the leading subject of discussion. The special occasion of the discussion was the recognition of unhealthy milk—milk from a diseased cow—as the exciting cause of diphtheria and other so-called epidemic diseases. The debate left no doubt as to the facts in the instance under consideration.

After careful and detailed examination of the whole circumstances, the only conclusion that could be arrived at was that some "personal" condition of the cow as cow, or some inherent property of the milk, had probably been the cause of the diphtheria. As regards the causation of milk epidemics generally, our present knowledge is as follows:—Of milk-typhoid epidemics, some have been clearly traced to contamination of the milk by means of infected water or air—the usual media for the spread of the disease where milk is not in question. But in a certain number of cases this intervention of infected water or air, though it cannot be excluded, appears very unlikely, even after the most pains-taking inquiry. Though the association of the disease with a milk supply is clearly made out, no source of infection of the milk can be detected, and the inquirer is forced, in such cases, to ask himself whether, if milk *per se* were capable of producing enteric fever in man, the observed facts would not tally better with such an etiology. In regard to scarlatina in its relations to milk, in no instance has the intervention of infected water ever claimed to be considered; the same may be said of air infection, except as through direct human contamination of the milk; and, indeed, it is very seldom that any circumstances affecting the milk after its secretion have sufficed to explain its infectiveness. Here again, therefore, in the recorded cases of milk scarlatina, observers have generally been compelled to entertain the probability that the cow as cow, and milk as milk, have been concerned in the production of the human affection. As regards milk diphtheria, again, little has been hitherto observed. The epidemic referred to lends no support to any hypothesis that antecedent human cases are always wanted to render milk infective, and the outbreak would receive

its readiest explanation in some condition proper to the cow herself or to her milk.

Certain diseases in the cow are already known to be capable of producing diseases in man having considerably different clinical phenomena from those seen in the quadruped. Thus vaccinia is a disease *ejusdem generis* with human small-pox, yet it differs much, in its severity and other particulars, from its human analogue, affecting very slightly the amount of milk secreted by the animal. "Foot-and-mouth disease," again, is transferable by milk, under certain conditions, to man, causing aphthous affections, with derangement of the stomach and bowels. We know, too, that miliary tubercle in the cow is capable of giving rise to similar lesions in animals, perhaps also in the human subject, consuming the milk. The anthrax fever of cattle is also known to produce malignant carbuncular disease among those who have eaten the flesh, and a diphtheritic throat affection among pigs that have been fed on it or on the milk of affected animals. Another disease, not derivable from the cow, may be cited as showing that an affection hardly attracting any notice when affecting the quadruped may, on its transference to man, produce the most serious results—trichiniasis.

The disease of the cow which was said to lead to diphtheria is that known as "garget" or "caked bag;" but there is very little to show that this common complaint has such sequelæ. Enough has been said, however, to show that every physician should familiarize himself with the diseases of domesticated animals; he should have some work in his library on the subject; and he should be able to discuss intelligently the nature and relations of the principal maladies which present themselves.

Notes and Comments.

The Convention of Medical Colleges.

On page 197 we announced the Convention of Colleges, which is to take place at Atlanta, on May 2d. This convention is called pursuant to a series of resolutions by Prof. S. D. Gross, passed at the meeting of the American "Medical College Association," at Buffalo, last June. Recognizing the substantial failure of all efforts hitherto made to adopt a uniform system of instruction, equal to the requirements of the age, and with the practice of European medical schools, Prof. Gross suggested this convention, for the purpose of taking "definite and final action" on this important subject.

We look forward with sanguine hope to the action of this Convention. It is an appropriate moment to insist that all medical colleges pretending to be of the first class should render their courses of instruction more thorough. We confidently trust that they will all agree in demanding, at least, two reforms; first, a preliminary examination, equal to that required to enter the lowest class in the academical department of Yale or Princeton; and a three years' course of study. There is, really, no doubt on any side, that both these would be eminently desirable; and the only objections to at once accepting them are considerations of expediency—in other words, of money making. Let not this motive stand in the way of what is evidently a duty to the profession and the public.

Effects of Expectant Attention.

We have all read of Bœrhave's student, who had the symptoms of every disease as soon as the great lecturer described them. The following analogous examples are given by Dr. Prosser James, in the *British Medical Journal*:—

A few years ago a lady who had watched a case of cancer of the breast which had been excised, became convinced that she was suffering from the same disease. The pain, she said, amounted to agony, and its character was just such as she had witnessed. As an intimate friend, I was spoken to by the relatives, and took her to the surgeon who had operated on the case—Sir James Paget. He reassured her so completely, that peace of mind was soon restored. Pressed to say, if not cancer, what could cause such agony, he declared that it was not a surgical case at all, and would never require the knife. She was soon well.

Another lady, who had been under my care for laryngeal disease, traveled a long distance to confide to me her conviction that she had cancer of the breast. The history was similar. She, too, rapidly recovered on being assured that there was no such danger.

No part of the body is more likely to be affected by "expectancy" than the throat.

A few months since a lady succumbed to cancer of the throat. I saw her in the later

stages every week. A few weeks after her decease a young lady, a near relative, who had nursed her, came to me in the utmost distress, affected, as she believed, with the same disease. This single consultation led to her recovery.

Longevity of Quakers.

It appears, from the annual list of the members of the Society of Friends, that the number of deaths among that body during the past year, in Great Britain and Ireland, was 281. There are about 17,000 members; the mortality is consequently much below that of the population generally, and shows the longevity which prevails among the members of the Society. The infant mortality was very small, only 15 deaths of children under one year; between one and five years 18 occurred; between five and twenty years, 11; between twenty and thirty years, 19; from thirty to forty years, 15; and 11 only between forty and fifty years. Above fifty years old the numbers rise, the deaths in the first decade being 24; between sixty and seventy, 46; while from seventy to eighty (the most fatal period) the deaths were 65. Above eighty and below ninety the number was 53—a very high rate out of a total of 281; while from ninety to a hundred there were 5 deaths. Of the total 281, 147 were males and 134 females.

If we inquire into the causes of this exceptional longevity, they are easily seen. They are embraced in the old couplet—

"Temperance, cleanliness and repose
Slam the door in the doctor's nose."

The Law of Average in Suicides.

According to the mortality returns of London, deaths by suicide, when all different forms are simultaneously estimated, present a well-marked line of weekly occurrence. The maximum period is from the last week of April to the third week of August, the absolute maximum being in June, the minimum in the beginning of February. From September to March the deaths from suicide are under the average of the year. But when specific forms of suicide come to be considered, striking divergences are noticeable. Deaths from suicide by wounds are above the average from the middle of March to the end of August, April and June being the two highest months; and under the average from the beginning of September to the middle of March, with the exception of a short rise in the beginning of the year. Suicides by poison are more indiscriminately practiced, and no seasonal order can be traced in them. Suicides by drowning are above the average from the last week of April to the end of September, but by far the largest number are committed in May and June. It is pointed out that this maximum is quite different from that which characterizes deaths by drowning as a result of accident or negligence, in which a decided maximum occurs in July and August. The maximum in suicide by hanging is reached between the last week of March and the first week of July; so that the pronounced suicidal calendar, so to speak, is—hanging from March to July; stabbing, cutting, or shooting from March to August; and drowning during May and June, other parts of the year being "close" as a suicidal season, unless for poisoning, which is always equally open.

How to Care for the Eyes.

According to Dr. Javal, of Paris, the increase of near-sightedness in France is due to the over-exertion and fatigue of the eyes. It is well known that after having looked fixedly for some time at a piece of checkered stuff, the sight becomes troubled, the eye being fatigued, through the repetition of the same colors. Now, the same thing will occur in reading a book which rests on the table; if, however, it be moved up and down, the cause of fatigue will be removed. Another origin of fatigue to the eye is the black lines on white ground, such as they exist in almost all the books. The eye is not achromatic; and if the blue color of the solar spectrum be suppressed, the spectrum of diffusion on the retina is to a certain extent avoided, which relieves the eye greatly. Therefore, the printing paper ought to be of a yellowish (wash leather) color. Another cause of fatigue is the length of the printed lines on wide pages of one column.

Chloroform Accidents.

Many chloroform accidents are doubtless due to impurities in the drug. A French chemist, M. Perrin, states that commercial chloroform has become much less reliable and more dangerous of late years. Sleep is often difficult to get with it, and he mentions some cases in which the attempt had to be given up, after trying successfully the drug procured in several shops. It often produces disorder of the stomach, moreover (vomiting, etc.), and twice in his recent experience it caused a state of apparent death, which was followed by extreme exhaustion.

If chloroform, when tested by the addition of sulphuric acid, turns a fine red mahogany tint, it contains impurities and should not be used,

Therapeutical Notes.

REMEDIES FOR HICCUP.

Dr. Grellety, (*Lyon Méd.*, No. 51) has observed that hiccup in children was immediately stopped by giving them a lump of sugar saturated with table vinegar. The same remedy was tried on adults, with similar instantaneous success.

Another remedy, which may even be considered more handy, was mentioned by a Russian priest to a lady, and has always proved very efficacious. It consists simply in looking fixedly, for about five minutes, at the blade of an open penknife, without either speaking or laughing. The remedy has been tried innumerable times, and has never proved unsuccessful.

EUCALYPTUS IN A COLD IN THE HEAD.

Prof. Stambio, in a note in the *Gaz. Med. Ital. Lombard.*, January 11th, says that, notwithstanding the failure of all the remedies hitherto recommended for the immediate cure of a cold, he wishes to communicate to the profession the great success he has found attending a new one, in his own person, and to ask them to test its efficacy. He found prolonged mastication and swallowing of a dried leaf or two of the eucalyptus globulus almost immediately liberated him from all the effects of a severe cold.

OXYGEN IN ALBUMINURIA.

At a meeting of the Therapeutical Society of Paris, Dr. Dujardin Beaumetz related a case which had reached its last stage, all means having been tried in vain, when the respiration of oxygen was had recourse to. The albumen disappeared completely during the first twenty-four hours of its employment, and although this disappearance will probably prove only temporary, twelve days have passed without any return. Dr. Constantin Paul replied that he had published two analogous cases, in which, under the use of oxygen, the albumen disappeared, but in two months it returned as bad as ever. Similar cases have since been published, and the most that can be hoped for from this means is a comparatively long remission.

SALICYLIC ACID ENEMATA IN DYSENTERY.

Dr. Berthold employs an enema, consisting of one gramme of salicylic acid, 300 grammes of distilled water, and alcohol, q.s. In dysentery with tenesmus and bloody stools, he administers it every four hours. The tenesmus diminishes, and the number of the stools is rapidly reduced, the fecal matters gradually acquiring their normal appearance, the temperature diminishing, and the appetite returning.

Action of Substances on the Teeth.

As the result of numerous trials made by the exposure of recently extracted teeth to the action of various substances, M. Maurel comes to the conclusion (in the *Jour. de Thérapeutique*) that if various medicinal substances are dangerous in their action on the teeth, others in still larger numbers prove, in their habitual employment, quite inoffensive. Thus, if we are required to take great precautions respecting citric acid, tannin, chlorides of zinc and antimony, perchloride of iron, iodine, sulphate of copper and alum, we may continue to employ with complete safety arsenious and carbolic acids, vinegar, corrosive sublimate, chlorate of potash, alcohol, tincture of benzoin, essence of mint, tincture of quinine, and eau de Cologne. Tobacco, whether used in chewing or smoking, does not injure the teeth beyond causing their discoloration.

Early Child Bearing.

In a recent case in London, of a criminal assault on a girl under twelve years of age, it was proved in evidence that the girl had been delivered of a full-grown child, which is still living, at the age of twelve years and one month. The prisoner, who was the girl's stepfather, was convicted of the felony and sentenced to ten years' penal servitude. It is stated that with the exception of two anonymous cases quoted in Taylor's work on "Medical Jurisprudence," this is the earliest age of delivery recorded as having occurred in England. Such early maternity is not unusual in the tropics.

Correspondence.

A Hypothetical Case of Alleged Poisonous Dose of Tincture Veratrum Viride, with its Ethical Bearing.

ED. MED. AND SURG. REPORTER:—

Allow me to report the facts in a case that came under my supervision, wherein I wrote a prescription which was not given, because it was alleged, by the druggist and some others, that the first dose would kill the patient. I ask the kindly criticism of your readers; that they will endorse the innocuousness of the dose or condemn it, according to the merit of the case.

On the morning of the 9th ultimo I was requested by Judge F. to visit his son Jesse, aged thirteen, some two hundred yards from my abode. He had been in bad health during the fall, having chills, and probably some splenic enlargement. He was taken the day previous with a chill; he had fever; pulse about 118; rapid respiration; constant cough; somewhat delirious at

my first visit—this, at my second, the same evening, was very pronounced; considerable pain in left side. On auscultating I discovered coarse crepitant râles beneath the left scapula, and bronchial respiration generally, demonstrating an incipient pneumonia. I was extremely desirous of aborting the disease, which I deemed possible, and having in memory a prescription of Dr. Bemiss, which I saw in a paper on pneumonia, written by him, and published in the New Orleans *Medical and Surgical Journal*, July, 1878, I purposed using his formula, but knowing the citrate of ammonia, which was one of the ingredients, was not to be had in our village, and because I preferred the carbonate, I wrote the following:—

℞. Ammoniæ carb., ℥j
Tinct. digitalis, ℥ij
Syr. morphia,
Syr. ipecac., āā ℥j
Norwood's tinct. ver. viride, ℥ss
Sulph. cinchonidiæ, ℈j. M.

Sig.—Two teaspoonfuls, every two hours.

This is the prescription, of which it was alleged "The very first dose would have killed the patient." Now, if I calculate the dose of the veratrum correctly, there are about seven and a half or eight drops every two hours, or even double that. The question is, would this have proven fatal? Now, I claim, even if the whole amount (half a drachm) had been administered at a single dose, it would not have seriously jeopardized life; although I grant it was a somewhat larger dose than is usually prescribed. I have been accustomed to use the remedy for the last fifteen years, and think it was only a medium dose, as I rarely ever have given less than six or eight minims to commence with.

Stillé, in his "*Therapeutics*," does not write as if he deemed the medicine hazardous in any dose; he mentions no death from it in the edition I have, although he speaks of one person who took, through mistake, *one ounce* of the tincture, with no great detriment.

In Bell's Report on Materia Medica, in vol. II, *North American Medico-chirurgical Review*, he quotes Dr. H. Livezey, of Penna, who expresses himself, in strong terms, in favor of veratrum. He directs five drops of Tilden's fluid extract, increased one drop with each dose, till an effect is produced.

Dr. Taliaferro, of Atlanta, Ga., claims that it will cut short pneumonitis if *freely* used in the beginning; his first dose was *ten drops*, and he says it may be continued for days, and even weeks, without unpleasant consequences. In reference to its toxical effect, he reports the case of a physician of Atlanta having swallowed, inadvertently, *four hundred and eighty minims* of the tincture at a draught, producing only nausea, vomiting, and some difficulty of breathing. He quotes Dr. Hutchinson, of Indiana, who relates, in the *Western Lancet*, a case of croup in a child, aged three years: after using other remedies, with but little benefit, he gave tincture veratrum viride, *five drops every twenty* minutes, until four doses were taken; that was eighty drops in one hundred and twenty minutes, with only slight vomiting; continued veratrum, *five* drops *every hour*; and his closing remarks are: "The remarkable circumstance in this case was the quantity of veratrum administered, with the happiest result. He took, in twenty-four hours, *one ounce* of the tincture, without producing vomiting to any extent; but it speedily reduced the inflammation of the throat and air passages."

Also, Dr. C. H. Murphy, in the St. Louis *Medical and Surgical Reporter*, March, 1857, speaks in the highest terms of it, and reports twenty-one cases of pneumonia treated with this agent. He used eight drops every three hours; increased one drop with each dose till the desired effect was produced. In one of his cases the above-mentioned dose was directed every three hours, till it nauseated. This not being accomplished, the medicine was increased the next day to *sixteen* drops at a dose, and thus brought down the pulse, and the patient made a rapid recovery.

Dr. Watson is quoted, reporting a case of a negro girl, aged seventeen, with pneumonia, in the Nashville *Journal*. The girl was almost moribund, when seen; gave *twelve* drops of the tincture, and thus brought down the pulse from one hundred and thirty to sixty; repeated the dose the next day, resulting in a rapid recovery.

He reports another case of a child, eighteen months old, seized with pneumonia, where he gave one drop of the tincture, waited two hours and gave three drops, which calmed the patient. The remedy was repeated on two other occasions, the child promptly recovering. He reports one case where the pulse proved intractable, even where the tincture was used in doses of *sixteen* drops, *repeated every three hours for three successive days.*

Dr. Hill, of Illinois, in the *Northwestern Medical and Surgical Journal*, May, 1857, relates a case of remittent fever: after using other remedies, to use his language, "The fever, wild and high, coursed through every vein" of his patient, with active cerebral congestion and delirium; gave two doses, of *five* drops each, of the tincture of veratrum, at an interval of half an hour between them, which produced emesis, followed by diminished frequency of pulse; he then directed three drops of the tincture every hour and a half till a complete intermission should occur; next morning the patient sat up in bed, and was soon well.

Dr. Fordyce Barker, in a case of puerperal fever, reported in the *American Medical Monthly*, November, 1857, used *ten* drops of tincture veratrum viride ever hour, for seven consecutive hours, and continued the use of it in varying doses almost hourly, for ten days, and thus brought his patient safely through.

I noticed, also, several years since, in the *American Journal of Obstetrics and Diseases of Children*, some physician in New York city treated puerperal eclampsia by teaspoonful doses of Norwood's tincture, with marked success. A practice I subsequently imitated in a case of the same kind, occurring soon after reading the article, with no detriment to my patient, but, on the other hand, with great benefit.

The Memphis *Medical Recorder* gives an abstract of an account by Dr. Gorham, giving as

high as seven drops in a case of dysmenorrhœa, with curative results.

Dr. Haughton, of Indiana, in the Nashville *Journal of Medicine and Surgery*, December, 1856, says, in regard to the safety and efficiency of veratrum viride, that he has "given it in all ages, from the infant to adult age, and has always obtained the desired results."

Dr. Newsom, of Georgia, in the same journal, January, 1857, reports the cases of two sisters, aged fourteen and sixten, who each took *half a teaspoonful* of tincture veratrum viride (Norwood's) repeated in an hour, for the purpose of producing abortion, as they were illegitimately enceinte, without any deleterious effect, or success of the object intended.

He relates another case where a married woman took *two doses*, of thirty drops each, for the same purpose, with the only result of being much nauseated.

Touching the question of *safety* in the use of veratrum viride, Dr. Newsom says that since 1850 he has given it in almost every variety of inflammatory affections, and has never seen any ill effects from it.

Doubtless there is much more testimony fully as ample as is brought forward from this single report; but this ought to be sufficient to satisfy the most doubtful. There are many physicians who have never used the remedy, or only in very small doses, restrained from fear of using it because some one has told them of its harmful effects; others, who have never read the literature of the subject, have given such small, homœopathic doses as to derive no benefit from it. Probably the patient becomes nauseated after a few doses; they then suspend its use, and heap abuse upon what I consider one of the best remedies in the materia medica; and what is worse, if they have any influence, cause other members of the profession to proscribe it, without ever giving it a trial; or, what is still more injurious, frighten the friends or patients of some doctor into the belief that it is very hazardous, either by a direct avowal, or an evasive answer, thus leading the friends and patient to believe life is being jeopardized, and probably cause the dismissal of the medical attendant, as happened in my case, and the employment of another gentleman. Now, is not this the height of injustice? How shall we treat such confréres?

I saw Dr. H., the physician who, by his reticence when the prescription was exhibited to him, caused the father to believe he corroborated the opinion of the druggist, that the dose was a poisonous one, and when I showed him Bell's report, as I have copied it, he frankly stated he did not know it had ever been given in such "heroic doses," as he was pleased to call them, and admitted I had ample testimony to sustain the innocuousness of my prescription; but for causes best known to himself, he refused to give me a written certificate to that effect, but reiterated *he* would be afraid to give it in so large a dose as eight drops.

Now, I appeal to the profession, especially to those who have had experience with this remedy, for their opinion of this prescription, and their advice and counsel in the premises.

Elmo, Texas. R. Fowler, M.D.

Delivery in Convulsions.

Ed. Med. and Surg. Reporter:—

In the Reporter of Feb. 22d is an article on "Puerperal Convulsions," wherein the writer says that, in his experience, "forced delivery has never seemed to do any good, only by the amount of blood lost during the operation." Permit me to report a case of recent occurrence: Mrs. L. M., aged 20, married about a year, and about seven months in pregnancy. She retired to her bed rather late at night, in apparent usual good health, when, about four in the morning, she was taken, without warning, with fearful convulsions, lasting several minutes, and leaving her in a comatosed state. The spasms returned at intervals of half an hour, until about eight, when I arrived. Finding my patient of full habit, I immediately practiced venesection, drawing about ten ounces of blood. Soon after the spasms returned with full force, when I proceeded to administer chloroform, which, of course, stopped the convulsions. Making a digital examination, I found the womb high up, and no indications of dilation. I remained two hours, and as the spasms did not return—the patient still unconscious—I left, giving instructions to call me should there be any change for the worse.

About seven in the evening a messenger arrived, saying that the spasm had returned, and three or four had already taken place. On reaching the house, I found her in the fifth convulsion. Having lost confidence in extracting blood, I again administered chloroform. On examination, I found the womb about as before, with increased vaginal secretions. The convulsions did not return, neither did consciousness, the breathing stertorous. I resolved to forcibly dilate the uterus, and deliver with forceps, which was successfully accomplished about thirty hours from the time of her first attack. In less than two hours after delivery the patient awoke, perfectly conscious. Her recovery was rapid. At the time of delivery very little blood was lost; neither was there excessive flooding afterward. Query—was the return of consciousness and the cessation of convulsions the result of the loss of blood, or of the relief of the nerves and vessels by removing the child? I am inclined to believe the latter, and have an opinion that if excessive blood letting had been practiced without speedy extraction of the child, the patient would have succumbed. W. L. Boughton, M.D.

Northwood, Iowa.

Review of Dr. Nowlin's Article on the Contagiousness of Yellow Fever.

Ed. Med. and Surg. Reporter:—

In the number of the Reporter for November 30th, 1878, Dr. J. H. Nowlin criticises the observations of Surgeon General John M. Woodworth, in what appears to me an unfair manner.

The Doctor makes two points: first, that without the multiplication of the disease germs in the individual the yellow fever could not be so fatal; and second, that granting that the germs are multiplied in the individual, it is against reason that these germs should attach themselves to clothing and other fomites, and thus

affect another individual, and still be insusceptible of being conveyed from one individual to another. Notice this second point first. No anti-contagionist believes that this disease is multiplied in the way the Doctor indicates, but that the germs are multiplied outside of the body, in some suitable nidus (as decomposing animal and vegetable matter), and that the germs may then attach themselves to clothing or merchandise, and be transported to a distance, and either affect an individual, or, finding a suitable nidus, may be multiplied indefinitely.

With reference to his first point, I would remark that no one ever estimated the number of yellow fever germs an individual may take into his system. Dr. Rush, in his account of the epidemic which prevailed in Philadelphia in 1798, states that every one who remained in the city, even those who did not take the fever, were affected by the poison. For days certain symptoms of exhaustion manifested themselves, and then any exciting cause would give rise to the fever. The air was loaded with poison, and at every breath agents inimical to life were received into the system. It is true that there are cases on record where brief exposure in an infected district has given rise to the disease. Knowing nothing of the effect of a single germ on the body, we cannot say how many it will take to destroy life. A multiplication of germs within the system is not, however, inconsistent with its non-contagious character. It is in the range of possibility that the germs may exist in different states. One can imagine that they may be multiplied in the individual, and yet be insusceptible of transmission to another. It seems highly probable that the germs of malarial fever multiply in the individual, and yet no one contends that it is contagious. The truth of the matter is, we know so little of the conditions of germ life that we can arrive at no valuable truth concerning them, by any process of reasoning. It is by carefully collated facts alone we can arrive at the truth. The preponderance of the facts known (as of that given by Dr. Flint, of Don Cabarrellos, who, with fifty persons, slept in the beds where yellow fever patients had died, without one taking it) is so greatly in favor of the non-contagion of the disease, that it would be easier for the advocates of contagion to prove that there is more than one disease called by a common name, than to refute them. W. D. Hoyt, M.D.

Rome, Ga.

News and Miscellany.

Precaution Against the Plague.

Surgeon General Woodworth has issued a circular, calling the attention of officers of the customs revenue and medical officers of the Marine Hospital service to the act to prevent the introduction of contagious diseases. It instructs them to allow no vessels to enter port which have on board rags or furs from the plague-stricken south of Russia, until they shall have been thoroughly disinfected and the rags removed by open lighters to some isolated locality, and burned or disinfected.

Commencements.

The Yale College Medical School has graduated eight students. The School of Medicine of the University of Maryland graduated, on March 1st, 50 students. Bellevue Hospital Medical College conferred the M.D., February 28th, on 165 young men.

Personal.

—There was a triple funeral from the house of Dr. Charles N. Frederick, of New Centreville, Chester county, Pa., last week. His three children, Clara, Bessie and William, died of scarlet fever, within a few hours of each other.

—The heaviest verdict for personal damages ever secured against a railroad is probably that for $39,501, which Dr. Charles W. Hackett, of Maplewood, Mass., a rising young physician, has just been awarded, against the Eastern Railroad, for having destroyed his health and so cut off his income for life, by an accident.

—The wife of a prominent physician in Lexington, Ky., became deranged after attending a revival meeting, and was found wandering six miles from home, carrying a message from Christ to a friend.

OBITUARY NOTICES.

Dr. John Hugh McQuillen.

Two bright lights of the medical profession have recently gone out, in the midst of fields of usefulness; the one, Dr. John B. Biddle, the Dean of Jefferson Medical College, and Professor of Materia Medica, and the other Dr. John H. McQuillen, an alumnus of the same school, and Dean of the Philadelphia Dental College, of which he was one of the founders, and to which he devoted much of his time and all his talents, and of which he had cause to be proud, for its reputation has extended all over the globe. Dr. McQuillen was born in Philadelphia, February 12, 1826, and died on Monday evening, March 3, 1879, of congestion of the brain, from over mental exertion.

Our friend had the germ within him which no uncongenial employment could check in its growth and development; he was what is called a self-made man; he educated the innate talent which God had given him, and it yielded fruit an hundred fold.

His tastes were refined, and inclined him to study a profession, and he employed all his spare moments, even when in a mercantile house, to fit himself for his professional pursuits. When he was free from business engagements, he devoted years of careful study to fit himself as a leader in the practice of his profession, as a scientific dentist. Not content with his D.D.S. and private instructions, he added greater labors, and also—which at that time was the exception—graduated as a physician at Jefferson Medical College.

This was the beginning of a career as a writer, experimenter and original worker, ever increasing, to the time of his death, which found him at his favorite place for study and demonstration, the

microscopic section of the Academy of Natural Sciences, of which he was Secretary; he was, indeed, at the head and front of all the active movements of this useful branch of the Academy. During a period of twenty-five years he has been a constant contributor to the journal of the Academy, the *Dental Cosmos*, and other literary and scientific journals. His editorship of the *Dental Cosmos* was referred to in terms of the warmest praise, by Prof. O. W. Holmes, in a lecture upon the claims of dentistry, delivered before a graduating class of Harvard dental school, and his services were sought by one of the oldest medical schools in this country, to fill the dental chair.

I cannot but feel deeply grieved at the loss to the medical, and still greater loss to the dental profession of this city. Indeed, with truth, his loss is a national one. Dr. McQuillen was an enthusiast in his love for progress and advancement, and he did all in his power, even beyond his powers, for the elevation and ennobling of his profession. The Doctor set a bright example to the workers in original investigations and research, and always gave a helping hand or word to all with such aspirations. By his stores of information, eloquence, and love for his profession, he exalted it in the eyes of the world. As a companion and friend, he was truly lovely; his wonderful memory was stored with beautiful things, culled from useful study and reading, and his words flowed like a mountain stream, sparkling with the sunlight of his wit; only those who knew him intimately could fully appreciate this trait in his character, and live in the enjoyment of it.

Among his numerous experiments and original observations and monographs, in his special department, there was one which deserves mention, the action of anæsthetics on the blood corpuscles; this at once gave him a place as an original worker in histology and microscopy. His winter courses of lectures, on Physiology and Dental Histology, were always illustrated by vivisections and practical demonstrations, and were equal, indeed, superior, to many courses delivered in our medical schools. He originated the American Dental Association, and was its President. He also held the office of President of the Pennsylvania Dental Society, and of the Odontographic Society of Pennsylvania, and was a corresponding member of a number of American and European scientific societies. His bright example is well worthy of imitation.

LAURENCE TURNBULL, M.D.

Dr. H. O. Wilson,

A prominent physician of Slatington, Lehigh Co., Pa., died, February 27th, of softening of the brain, aged nearly fifty-six years. Deceased was born at Bath, Northampton, Co., Pa., graduated at the Lafayette College, at Easton, and in 1845 at the University of Pennsylvania, and entered on the practice of his profession in the summer of 1845, near Unionville, Lehigh Co. From there he removed to Slatington in 1854. He has been in active practice for nearly thirty-five years. His wife, two sons and two daughters survive him.

The Doctor was a sound thinker or theorist, with excellent practical abilities, untiring industry and a splendid diagnostician. In complicated cases, his opinion was sought for in consultations, by physicians residing many miles around him, in Lehigh, Carbon and Northampton counties. His last words were, "Are they all here? I am going." L. B. B.

QUERIES AND REPLIES.

Dr. B. F. Y., Phila.—The formula in current volume, page 181, includes two species of *viburnum*, *v. prunifolium* and *v. obovatum*.

Subscriber.—The Transactions of the American Medical Association will be out this month. We are informed there will be no extra copies this year.

Achatus.—Sterility in the male, from gonorrhœa, is not unknown; but barrenness in the female as a sequela of this disease (gonorrhœal ovaritis), we do not remember to have heard of.

Inquirer.—A druggist ought not to show the prescriptions of one physician to another, without permission, nor should a physician ask the druggist to do so; still less should a physician examine the prescription files, to find out how his brethren are prescribing. It is undignified. If he wants information, let him ask them.

Dr. D. W. A., of Ill., inquires—"May it not be a fact that the ovule, and not the spermatozoids, furnish the germinal body for the new being; that the ovule proceeds a little in its development, even without being impregnated, *i. e.*, changes its form from *female* to male; that if impregnated early, while in its female form, the result will be a *female*; that if impregnated later, *i. e.*, after the transition point, the result will be a *male*?"

MARRIAGES.

DE VARONA—FERRIS.—On Tuesday, Feb. 25th, by the Rev. Dr. N. H. Schenck, D.D., at the residence of Jas. B. Laing, Esq., Adolfo De Varona, M.D., and Elizabeth W. Ferris, both of Brooklyn, N. Y.

FOX—HOLLINGSWORTH.—On Feb. 25th, 1879, at St. Luke's Church, by the Rt. Rev. Bishop Hare, assisted by the Rev. Dr. Currie, William Logan Fox, of Foxburg, and Rebecca Clifford, daughter of the late Samuel L. Hollingsworth, M.D., of Philadelphia.

TULLY—GOFFE.—On Thursday evening, Feb. 20th, at the residence of Mr. Fleming Smith, No. 127 West 22d St., New York, by the Rev. W. F. Fenn, of Portland, Me., assisted by the Rev. W. F. Whittaker, of Orange, N. J., Dr. Marcus Edward Tully, of New York, and Florence, daughter of Hon. George Goffe, of Bedford, N. H.

DEATHS.

ASH.—At Upper Darby, Pa., on the evening of the 26th ultimo, Joshua W. Ash, M.D., in his 77th year.

BODINE.—In Philadelphia, on the 24th ultimo, after a lingering illness, Dr. Jesse E. Bodine, in the 75th year of his age.

FRUITNIGHT.—In New York, on Wednesday, Feb. 26th, Gertrude, daughter of the late Alex. and Catherine Huggins, and wife of J. Henry Fruitnight, M.D.

KELLAM.—In St. Charles, Minn., March 2d, 1879, of puerperal pyæmia, Mrs. Emma M. Kellam, aged 38 years, wife of Dr. C. R. J. Kellam.

KINKEAD.—At her residence, in New York, on Friday, February 21st, Anna S., wife of Dr. John Kinkead, and daughter of L. G. Dodge, of Poughkeepsie.